

## INFORMATION SEARCHING SKILLS AND TECHNIQUES AMONG THE FACULTY MEMBERS OF B.ED COLLEGES AFFILIATED TO KARNATAKA STATE AKKAMAHADEVI WOMEN'S UNIVERSITY VIJAYPUR: A STUDY

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### ABSTRACT

The main purpose of the study was to know the Information searching skills and techniques among the faculty members of education. The Survey method of research was used for the present Study were-in questionnaire was designed based on the objectives of the study. The researcher has used stratified random sampling method for the selection of samples. A structured questionnaire was used to collect the data from the target population, thus a total of 300 questionnaires were distributed out of which 120 questionnaires were received with a response rate of 40%. The result of the study showed that faculty members under study have better information searching skills and techniques. They have also well versed with literacy skills such as locating, searching and retrieving of information. Further, they have better searching skills through different types of electronic resources. The faculty members have more frequently use simple search, title search, Web OPAC search and Boolean operates. The study concluded that many of the respondents have demand for short-term training on new teaching approaches as a result of the advent of new technology. Older teachers will need to take refresher courses to search for information in digital environments.

**KEYWORDS:** Information Searching Skills, Information Techniques, Education & Searching Strategy

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### INTRODUCTION

Searching skills and searching strategy is the action plan which is drawn to conduct a search. it encompasses several steps and levels of work in information retrieval. Information search skills-because of online networks and the internet, a significant amount of essential information may be accessed online through search terminals. Search techniques and technologies have also advanced significantly, including easy search, proximity search, Boolean search, truncated search, and federated search. The user must be provided with the necessary information, understanding, and training.

Searching behavior for this, new teachers will need to connect with senior colleagues on a frequent basis. Previous training in the B.Ed teaching approach can also be put to good use with the introduction of new technology, most countries now require short-term training on new teaching methods(computer assisted) refresher courses will be required for older teachers, especially during this pandemic situation Boolean search is a very common search technique that combines search terms according to the Boolean logic. There are three types of Boolean search are: AND search, OR search and NOT search.

However AND search allows users to combine two or more search terms OR search allows users to combine two or more search terms that the system retrieves all those items that contain either one or of the constituent terms, Boolean NOT search allows users to specify those terms that they do not want to occur in the retrieved record.

## **REVIEW OF LITERATURE**

**Kellar, M., Watters, C., Shepherd, M.(2007).** Have examined various aspects of user behavior on the web, including general information-seeking patterns, search engine use, and revisit habits. They have conducted a field study of 21 participants, in which they logged detailed Web usage and asked participants to provide task categorization of their web usage based on the following categories: fact finding, information gathering, browsing, and transactions. We also report on differences in how participants interacted with their web browsers across the range of information-seeking. Participants spent more time completing this task, viewed more pages, and used the web browser function most heavily during this task.

**Zimerman, M. (2012).** purpose- the purpose of this is to show that digital natives are different from older age groups. findings-digital natives are different in their search behavior, preferring web-based search engines such as Google, Yahoo and Bing. Practical implications-More focus needs to be placed on the digital natives, search habits to find out how best to serve this population. Social implications – Unless digital natives are taught how to search academic databases, they will be done a great disservice.

**Allen,B.(1992, June).** Cognitive abilities of fifty university students were tested using eight tests from the Kit of Factor- Referenced Cognitive Tests. All students searched for references on the same topic using a computerized index, and performance in the searches was analyzed using a variety of measures. It is suggested that information retrieval systems can be made more accessible to users with different levels of cognitive abilities through improvements that will assist users to can lists of terms, choose appropriate vocabulary for searching, and select useful references.

**Korobili, S., Malliari, A., & Zapounidou, S.(2011).** Have conducted survey is to determine the information-seeking behavior of graduate students of the faculties of philosophy(8schools)and Engineering a low to medium level of information-seeking behavior.

**Bergman,O., Beyt-Marom, R., Nachmias,R., Gradovitch, N.,&Whittaker, S.(2008).** Have conducted two sets of studies using the same questionnaire : (a)the windows study a longitudinal comparison of Google desktop and windows XP search companion, and (b)the Mac study a large scale comparison of Mac Spotlight and Sherlock. First, regardless of the search engine, there was a strong navigation preference: on average, users estimated that they used navigation for 56-68% of file retrieval events but searched for only 4-15% of events.

**Chang, N,C., &Perng J.H.(2006).** investigates the information requirements and search habits of graduate students at Tantung University, a private university in Taipei City, Taiwan. Results show that 90% of subjects conducted information searches using outside sources in addition to the university library; That more than 50%of respondents depend on the university library and fellow students when conducting information searches.

**Nazim, M., Saraf, S.(2006).** The study reports the result of a survey conducted at Banaras Hindu University (BHU)to determine the extent to which internet users are aware and make use of the internet. it has also been observed that slow speed, high internet charges, lack of training and lack of organization information are some of the factors that affect the use of the internet.

**KIM, S.U.** has presents a study on the information seeking behavior of high school students with diverse linguistic and cultural backgrounds in the learning environment. The study observation the high school students information search habits as well as their research ability.

**Halaszi, J.(1970).** The purpose of the survey was to discover how the worker collected general information or literature on a specialized subject, the aids he used to trace literature, the most important libraries for the worker, the aging of the literature, barriers in reading the literature, help in seeking literature, time devoted to reading literature and in the buying of new literature, the way the worker learned about new publications, and the amount he spent annually on buying scientific books and journals.

**Ucak, N.O.(2007).** The article examines the frequency and characteristics' of internet use of students studying at the department of Information Management at University Ankara, Turkey. Moreover, the study found no important difference in how the students reach the information through the internet and the search engines they prefer and the degree of search engines in fulfilling their information needs.

**Nandi, Jayashree,(2020).** Information seeking behavior is an important part of users studies, library staff have aware of users information requirements as well as information gathering habits in a digital environment, to enable them to provide better services. The study examines the several aspects of demographic factors of the respondents, academic background of the users, general information about the library, awareness and of information resources, searching methods and problems faced by the users in accessing information.

### **Need for the Study**

The nature of information seeking is changing. The internet is widely used, fast expanding, and indicating important shifts in the way research and education are conducted. University libraries must be aware of faculty members' searching abilities. The fast growth of internet use in libraries and information centers necessitates research into the quality of search requirements are:

- Fact about faculty access to and usage of information searching
- Faculty's comments on the quality of the information found while searching
- Most popular search engines and browsers among users
- What are their tactics for finding information
- Condition of the faculty about the updating subject knowledge
- Problems faced by faculty when doing information search

### **Objective of the Study**

- To find out the demographic background of the faculty members under the study
- Search options and search methods used by faculty members
- Knowledge about Boolean operators
- To find out the knowledge about the file formats

- Knowledge about availability of e-resources among the faculty members
- Awareness about channels used by faculty members

## METHODOLOGY

The main purpose of the study was to know the information searching skills and techniques among faculty members of Education under study for the present study, the survey method of the research was employed. Where in, structured questionnaire was used as data collection tool for collecting required information from the study population. The questionnaire was devised according to the objectives and available literature on the given topic based on the characteristics composition of the Population, appropriate sampling technique was adopted for the selection of the sample. Later, Structure questionnaire was distributed among the faculty members who are working in the B.Ed and M.Ed college in Karnataka. The data so collected was analyzed, tabulated and interpreted in the SPSS packages following section.

### Data Interpretation and Data Analysis

**Table 1: Gender wise Distribution of the Respondents**

| Gender | Frequency | Percentage |
|--------|-----------|------------|
| Male   | 56        | 43.8       |
| Female | 72        | 56.2       |
| Total  | 128       | 100.00     |

Table-1 Interprets that the majority of the proportion of faculty members (N=72) 56.2% are female faculty members, and remaining (N=56) 43.8% of the faculty members belongs to the male category. It is clear from the above discussion that given the study population is dominated by female members when compared to the male respondents.

**Table 2: Age wise Distribution of the Respondents Under Study**

| Age          | Frequency | Percentage |
|--------------|-----------|------------|
| Less than 30 | 36        | 28.1       |
| 30to40       | 38        | 29.7       |
| 40 to 50     | 43        | 33.6       |
| Above        | 11        | 8.6        |
| Total        | 128       | 100.00     |

Table-2 Interprets that a higher percentage of (N=43) 33.6% the respondents belongs to 40 to 50 years of age, the second highest numbers of respondents (N=37-29.7%) belongs to the 30 to 40 years of age group, more than one fourth (N=36) 28.1% of the respondents have less than 30 years of age and only (N=11) 8.6% of the respondents had more than 50 years of age group under study. It can be concluded that the majority of the study faculty members are 40 to 50 years of age, it shows that majority of the faculty members have a middle age group in their services.

**Table 3: Annual Income of the Respondents**

| Income            | Frequency | Percentage |
|-------------------|-----------|------------|
| 1 less than       | 60        | 46.9       |
| 1 to 4 lakhs      | 53        | 14.4       |
| More than 4 lakhs | 15        | 11.7       |
| Total             | 128       | 100.00     |

From table-3, it is clear from the above table that a large majority of the faculty members have income of less than one lakh Rs (N=60-46.9%) and more than half of (N=53-41.4%) the respondents have their income in the range of 1 to 4 lakh Rs while, hardly 11.7% of the respondents have their income more than 4 lakh Rs from their various sources of income. It can be concluded that, relatively the faculty members have less income, because many of the members are working on temporary basis as guest faculty in many unaided B.ED colleges under study, may be one of the reasons for the less income among the faculty members.

**Table 4: Domicile of the Respondents**

| Domicile     | Frequency  | Percentage    |
|--------------|------------|---------------|
| Rural        | 18         | 14.1          |
| Urban        | 110        | 85.9          |
| <b>Total</b> | <b>128</b> | <b>100.00</b> |

Table 4 summarizes that the highest percentage (58.5%) of B.Ed teachers belongs to urban proximity while the remaining (14.1%) of them are reported from a rural background. The representation of the teachers is more from urban places, as the B.Ed course is a professional degree, the rural community cannot afford the cost of the course. This may be the reason for less representation from the rural side. In this regard, the government should take necessary steps and also extend financial support for rural students who wish to pursue B.Ed & M.Ed programs.

**Table 5: Optional Subject Studied by Faculty Members under Study**

| Subject        | Frequency  | Percentage    |
|----------------|------------|---------------|
| Education      | 38         | 29.68         |
| Psychology     | 25         | 19.53         |
| Kannada        | 15         | 11.71         |
| English        | 11         | 8.59          |
| Physics        | 8          | 6.25          |
| Social science | 14         | 10.93         |
| History        | 11         | 8.59          |
| Chemistry      | 6          | 4.68          |
| <b>Total</b>   | <b>128</b> | <b>100.00</b> |

Table 5 Shows subject wise distribution of the faculty members. The majority of the B.Ed teachers Preferred (29.68%)Education subject, followed by Psychology (19.53%)subject 11.71% Kannada, another (10.93% )Studied Social science, 8.59% English, (8.59%) had History method(6.25% ) physics and only (4.68%) of the teachers teaching chemistry method. The majority of the faculty members under study have chosen educational and psychology methods as methods of instructions to B.Ed students.

**Table 6: Teaching Experience of the Respondents**

| Teaching Experience | Frequency  | Percentage    |
|---------------------|------------|---------------|
| Less than 10 year   | 54         | 42.2          |
| 10 to 20            | 60         | 46.9          |
| More than 20 year   | 14         | 10.9          |
| <b>Total</b>        | <b>128</b> | <b>100.00</b> |

Table 6 indicates the total teaching experience of the faculty members under study. Two fifth (46.9%) of the respondents have 10 to 20 years of teaching experience and meanly one half (-42.2%) of the respondents has less than 10 years experience and very few (10.9%) of the respondents has more than twenty years of teaching experience.

**Table 7: Social Class of the Respondents**

| <b>Category</b> | <b>Frequency</b> | <b>Percentage</b> |
|-----------------|------------------|-------------------|
| GM              | 53               | 41.40             |
| OBC             | 37               | 28.90             |
| SC              | 23               | 17.96             |
| ST              | 15               | 11.71             |
| <b>Total</b>    | <b>128</b>       | <b>100.00</b>     |

Table-7 the given table study population is constituted by GM, OBC, SC, ST respectively. The study population consists of 41.40% GM, 28.90 of OBC, 17.9% of SC, and remaining 11.71% ST respectively. So the given population is dominated by GM and OBC category among the given study population.

**Table 8: Education Qualifications of Teachers under Study**

| <b>Professional Qualification</b> | <b>Frequency</b> | <b>Percentage</b> |
|-----------------------------------|------------------|-------------------|
| B. Ed                             | 59               | 46.09             |
| M. Ed                             | 30               | 23.43             |
| M. Phil                           | 22               | 17.18             |
| P. HD                             | 17               | 13.28             |
| <b>Total</b>                      | <b>128</b>       | <b>100.00</b>     |

Table 8 interprets most of the respondents (40.09%) under study have B.Ed qualification, (23.43%) of the respondents have M.Ed degree to their credit, while (17.18%) of the faculty members had completed M. Phil degree, and remaining (13.28%) of the faculty members. It is conducted that, slightly more than 50% of the teachers have P.G Qualification, hence it is minimum required qualification for the faculty members at the entry level, appointment as a lecturer/Assistant professor for the B.Ed,

**Table 9: Research Experience of the Respondents**

| <b>Research experience</b> | <b>Frequency</b> | <b>Percentage</b> |
|----------------------------|------------------|-------------------|
| Not applicable             | 16               | 12.5              |
| Less than 2                | 66               | 51.56             |
| 2 to 5                     | 41               | 32.0              |
| 5 years                    | 5                | 3.9               |
| <b>Total</b>               | <b>128</b>       | <b>100.00</b>     |

Table 9 shows that the research experience of the respondents. Majority (51.56%) of respondents have 2 to 5 years experience; while (32.0%) of respondents have less than two year experience and not applicable (12.5%) to experience. 3.9% fewer respondents have more five years experience.

**Table 10: Designation of the Faculty Members**

| <b>Designation</b>      | <b>Frequency</b> | <b>Percentage</b> |
|-------------------------|------------------|-------------------|
| Professor               | 5                | 3.9               |
| Associate professor     | 14               | 10.9              |
| Assistant professor     | 57               | 44.53             |
| Guest faculty           | 25               | 19.53             |
| Full time guest faculty | 19               | 14.84             |
| <b>Total</b>            | <b>128</b>       | <b>100.00</b>     |

Table 10 shows that designation of the faculty members. Majority 44.53% of the respondents working as assistant professor, less number 19.53% of respondents working as guest lecture, 14.84% full time guest faculty and 10.9% Associate professor. A few (3.9%) respondents working as a professor.

**Table 11: Nature of the Job held by Teacher**

| Nature       | Frequency  | Percentage    |
|--------------|------------|---------------|
| Permanent    | 74         | 57.81         |
| Temporary    | 44         | 34.37         |
| <b>Total</b> | <b>128</b> | <b>100.00</b> |

Table 11 indicates the nature of the post held by the study population. It is observed that large majority of the faculty members (57.81%) working on a permanent basis and remaining (34.37%) of the faculty members working on temporary basis. it can be concluded that majority of the study population under study are working on a permanent basis and are getting consolidated salary.

**Table 12: Nature of Collage of under Study**

| Type of Collage | Frequency  | Percentage    |
|-----------------|------------|---------------|
| Government      | 14         | 10.9          |
| Aided           | 83         | 64.8          |
| Private         | 31         | 24.2          |
| <b>Total</b>    | <b>128</b> | <b>100.00</b> |

Table12 Reveals the type of institution covered under study. Majority (64.8%) of the faculty members are from aided institution and while (24.2%) of the faculty members are from private and on the others hand only few (10.9%) of the teachers under the study serving at government B.Ed collages one of the reason is that government B.Ed college it can be summarized from the above discussion that majority of the faculty members are from aided institution.

**Table 13: which Search Options do you Accessing/Searching for Searching Content**

| Search Options  | Frequency  | Percentage    |
|-----------------|------------|---------------|
| Basic search    | 26         | 22.65         |
| Simple search   | 40         | 31.25         |
| Advanced search | 21         | 16.4          |
| All             | 38         | 29.68         |
| <b>Total</b>    | <b>128</b> | <b>100.00</b> |

Table13 reveals which search option respondents used to access content on the internet, Majority (31.25%) of the respondents use simple search while nearly (29.68%) of the respondents use the search engines which are listed in the above table another (22.65%) of the respondents also use Boolean search method using basic search and However(16.4%) of the respondents use advanced search techniques.

**Table 14: Search Options used to Access**

| Search Method | Frequency  | Percentage    |
|---------------|------------|---------------|
| Author        | 35         | 27.34         |
| Title         | 45         | 35.15         |
| Subject       | 31         | 24.21         |
| Key search    | 15         | 11.71         |
| Publisher     | 21         | 16.40         |
| Abstract      | 12         | 9.37          |
| <b>Total</b>  | <b>128</b> | <b>100.00</b> |

Table 14 shows that more than one third 35.15% of the respondents use title search options, more than one fourth (27.34%) of the respondents use author, slightly less than one fourth (24.21%) of the respondents use subject search. Less than (16.40%) of the respondents publisher search,(11.71%)Key search, and (9.37%)Abstract majority of the respondents use to access title, author

**Table 15: Type of Search Option used in web OPAC**

| <b>Web OPAC</b> | <b>Frequency</b> | <b>Percentage</b> |
|-----------------|------------------|-------------------|
| Basic search    | 41               | 32.03             |
| Guide search    | 51               | 39.84             |
| Expert search   | 36               | 28.12             |
| <b>Total</b>    | <b>128</b>       | <b>100.00</b>     |

Table 15 a depicts the types of search option used in web OPAC by of the respondents under study out of 128 faculty members who have knowledge of Web OPAC.39.84% of faculty members use basic search to consulting Web OPAC, then nearly by (32.03%)of the faculty members have the knowledge of guided search. about (28.12%)of faculty members use expert search in web OPAC, it can be concluded that the majority of the faculty members are very well versed in basic search and guided search to search needed information in web OPAC.

**Table 16: Searching Method used in Library Catalogue**

| <b>Library catalogue</b> | <b>Frequency</b> | <b>Percentage</b> |
|--------------------------|------------------|-------------------|
| By author                | 58               | 45.31             |
| By title                 | 62               | 48.43             |
| By subject               | 41               | 32.03             |
| <b>Total</b>             | <b>128</b>       | <b>100.00</b>     |

Table 16 it is observed from Table-15 that, Out of 128, Respondents as many as 48.43% of faculty members are considered the title of the document to search required information in the library catalogue. Are another 45.31% of the faculty members prefer author approach to search required document in the library, while 32.03% of the faculty members considered the subject to search required information in library. It can be summarized from above that the majority of the faculty members consult the information sources by title and approach rather than the subject approach.

**Table 17: Using a Search Engines to find the Information what is your Search Strategy**

| <b>Using a search</b> | <b>Frequency</b> | <b>Percentage</b> |
|-----------------------|------------------|-------------------|
| Required statement    | 35               | 27.34             |
| Keywords search       | 79               | 61.71             |
| Wildcard              | 24               | 18.75             |
| Don't know            | 47               | 36.71             |

Table 17 Shows respondent's search strategy while using a search engine. Majority of the (61.71%) respondents use Keywords, more than one third(36.71%) of the respondents do not Know of the search strategy, one Fourth(27.34%) of the respondents use statement search and less number (18.75%) of the respondents use a wildcard search strategy. It can be inferred that majority of the teachers under study are well versed with Keyword search when compared to the method are well versed with Keyword based search when compared to other search option.

**Table 18: Purpose of use of Library Catalogue**

| Purpose                              | Frequency<br>N =128 | Percentage |
|--------------------------------------|---------------------|------------|
| Information about books              | 55                  | 42.96      |
| Information about journals           | 47                  | 36.71      |
| Information about videos             | 41                  | 32.03      |
| Information about news paper         | 39                  | 30.46      |
| Other non print items in the library | 35                  | 27.34      |

Table 18 Indicate the purpose of use of library catalogue. More than two fifth (42.96%) of the respondents prefer to search for information about a book. one third (36.71%) of the respondents used to search for information about journals. Slightly less than one third (32.03%) of the respondents used to search information about videos. Only 30.46% of respondents used to search information about newspapers and (27.34%) other non-print items in the library.

**Table 19: Knowledge of Boolean Operator among the Teachers under Study**

| Knowledge of Boolean Operators | Frequency  | Percentage    |
|--------------------------------|------------|---------------|
| Yes                            | 86         | 67.18         |
| No                             | 42         | 32.81         |
| <b>Total</b>                   | <b>128</b> | <b>100.00</b> |

Table 19 it is noticed from table the greater part of the study population 67.18% (N=86) have Knowledge of the Boolean operators and also they are familiar with these Boolean operators. Remaining 32.18%(N=42) of the faculty members do not have Knowledge of Boolean operators.

**Table 20: Knowledge about Boolean Operator among B.Ed Teachers**

| Particular          | Boolean operators |            |            | Total    |
|---------------------|-------------------|------------|------------|----------|
|                     | OR                | AND        | NOT        |          |
| Synonyms key words  | 39(45.34%)        | 26(30.23%) | 21(24.4%)  | 86(100%) |
| Combining key words | 37(43.02%)        | 31(36.04%) | 18(20.93%) | 86(100%) |
| Excluding key words | 41(47.67%)        | 27(31.39%) | 18(20.93%) | 86(100%) |

Table 20 out of 86 only (45.34%) of the B.ED faculty have Knowledge of Synonyms key words they have knowledge of OR operator, while (63.04%) of the B.ED faculty members have knowledge of the AND operator which is used for Combining key words another, (20.93%) of the faculty members have knowledge about the NOT operator which is used for Excluding in the key words. In general majority of the teachers have knowledge OR and AND Boolean operators, than NOT operator

**Table 21: Knowledge about of File Formats**

| Knowledge    | Frequency  | Percentage    |
|--------------|------------|---------------|
| Yes          | 110        | 85.9          |
| No           | 18         | 14.1          |
| <b>Total</b> | <b>128</b> | <b>100.00</b> |

Table 21it is observed from the above table that greater part of the study population (85.9%)have knowledge about the file format and also they have familiar with these file format, remaining 14.1% of the members do not have knowledge about file format.

**Table 22: Knowledge about Different File Formats among Respondents**

| File format | Frequency N=110 | Percentage |
|-------------|-----------------|------------|
| PDF         | 34              | 26.56      |
| MS-WORD     | 41              | 32.03      |
| MS-Access   | 18              | 14.06      |
| Excel       | 31              | 24.21      |
| PPT         | 33              | 25.78      |
| SGML        | 11              | 8.59       |

Table 22 reveals that which format that mostly preferred by respondent. it is found that more than one third(32.03%)of the students have knowledge of MS-Word,26.56%PDF,(25.78%)PPT and only (14.06%) of respondents have knowledge of MS-Access and( 8.59%)SGML.

**Table 23: How to Search Books or E-Books in the Library**

| E-books      | Frequency | Percentage |
|--------------|-----------|------------|
| Amazon       | 35        | 27.3       |
| The internet | 36        | 28.1       |
| Google.com   | 50        | 39.1       |
| Encyclopedia | 7         | 5.5        |

Table 23 show preferred mode of searching for books or e-books among the library respondents 39.1% of faculty members search books or e-books on Google.com as compared to (28.1%)of the respondents search books or e-books on the internet while,(27.3% )of the respondents search books by the Amazon less number of (5.5%) of the respondents search books or e-books by the encyclopedia.

**Table 24: Skills used to Journals Article**

| Journals article               | Frequency | Percentage |
|--------------------------------|-----------|------------|
| Indexing journal               | 42        | 32.81      |
| Abstracting journals           | 31        | 24.21      |
| Data base                      | 23        | 17.96      |
| OPAC(Online public accessing ) | 19        | 14.84      |
| HTML/News paper                | 13        | 10.15      |

Table24 indicates that a majority 32.81%of the respondents have skills to search for journals articles through indexing journals, and 24.21% of the respondents use abstracting journals,17.96%of the respondents use Database and nearly,14.84% of the respondents use Online public access to search for journal articles, 10.15% of the respondents use HTML/Newspaper.

**Table 25: Information Channels is used for Consulting Information**

| Information                       | Strongly Agree | Agree     | Somewhat Agree | Not Agree | Total | Mean | Rank |
|-----------------------------------|----------------|-----------|----------------|-----------|-------|------|------|
| Browse through shelves            | 41(32.03%)     | 70(54.7%) | 13(10.2%)      | 3(3.125%) | 403   | 3.14 | 7    |
| Utilization of index and abstract | 62(48.4%)      | 31(24.2%) | 31(24.21%)     | 3(2.34%)  | 406   | 3.17 | 6    |
| Information about friends         | 60(46.87%)     | 53(41.4%) | 10(7.8%)       | 3(3.90%)  | 422   | 3.29 | 2    |
| Consult bibliographies            | 49(38.3%)      | 45(35.2%) | 27(21.1%)      | 7(5.5%)   | 392   | 3.06 | 9    |
| Library staff                     | 57(44.5%)      | 56(43.8%) | 12(9.4%)       | 3(2.3%)   | 423   | 3.30 | 1    |
| Manuals key words                 | 57(44.5%)      | 53(41.4%) | 16(12.5%)      | 2(1.6%)   | 421   | 3.28 | 3    |

|                            |           |           |           |           |     |      |    |
|----------------------------|-----------|-----------|-----------|-----------|-----|------|----|
| Simple key words and phase | 58(45.3%) | 43(33.6%) | 25(19.5%) | 2(1.6%)   | 413 | 3.22 | 5  |
| Use a synonyms words       | 65(50.8%) | 26(20.3%) | 27(21.1%) | 10(7.8%)  | 402 | 3.14 | 8  |
| Use wild card/truncation   | 35(27.3%) | 33(25.8%) | 26(20.3%) | 34(26.6%) | 303 | 2.36 | 12 |
| Boolean operator           | 69(53.9%) | 36(28.1%) | 9(7.0%)   | 14(1.9%)  | 325 | 2.53 | 13 |
| Field search               | 31(24.2%) | 48(37.5%) | 23(18.0%) | 26(20.3%) | 416 | 3.25 | 4  |
| OPAC/WEBOPAC               | 28(21.9%) | 43(33.6%) | 32(25.0%) | 25(19.5%) | 340 | 2.65 | 10 |
| Website                    | 25(19.5%) | 53(41.4%) | 33(25.8%) | 17(13.3%) | 330 | 2.27 | 11 |

Table 25 shows data information channels used for collecting information. Search strategies are followed with different techniques, Here respondent strongly agrees with Boolean operator which result with highest percentage of 53.9%. Also, use a synonyms words, utilization of index and abstract, information are followed with 50.8%, 48.4%, 46.87% resp. are strongly agreed. Respondent also agree with brows through shelves, library staff, information and manuals card catalogue and websites, as 54.7%, 43.8%, 41.4%. even people somewhat agree with websites, OPAC/WEBOPAC, simple key words and phase etc. then, respondents did not agree with field search highest percentage of 20.3%. it concludes that, Library staff holds overall good with rank one.

**Table 26: what Extent are you using following Browsers for Accessing Electronic Information Resources**

| Browsers          | Great extend | Some extend | What extend | Not at all | Total | Mean | Rank |
|-------------------|--------------|-------------|-------------|------------|-------|------|------|
| Google chrome     | 37(28.9%)    | 59(46.1%)   | 26(20.3%)   | 6(4.7%)    | 383   | 2.99 | 1    |
| Internet explorer | 39(30.5%)    | 50(39.06%)  | 30(23.4%)   | 10(7.81%)  | 376   | 2.91 | 2    |
| Mozilla Firefox   | 49(38.28%)   | 37(28.90%)  | 20(15.6%)   | 22(17.18%) | 369   | 2.88 | 3    |
| Netscape          | 2(1.6%)      | 27(21.1%)   | 59(46.1%)   | 40(31.2%)  | 247   | 1.92 | 5    |
| Opera             | 3(2.3%)      | 37(28.9%)   | 51(39.8%)   | 37(28.9%)  | 262   | 2.04 | 4    |
| Safari            | 9(7.0%)      | 10(7.8%)    | 66(51.6%)   | 43(33.6%)  | 241   | 1.88 | 6    |
| Alta vista        | 4(3.1%)      | 13(10.2%)   | 56(43.3%)   | 55(43.0%)  | 222   | 1.73 | 7    |

Table 26 indicates about browser used for accessing electronic information. With great Extend Mozilla Firefox is used as 38.28% then internet explorer and Google chrome are as 30.5% and 28.9% respectively. And for some extent, Google chrome is used highest as 46.1% And rarely using browsers are safari, Netscape, Alta Vista, Opera 51.6%, 46.1%, 43.3% and 39.8% respectively. Browsers which not at all used are Alta vista, Safari, Netscape, opera as 43%, 33.6%, 31.2%, 28.9% respectively. Alta Vista holds minimum rank 7 and Google chrome internet Explorer Mozilla Firefox hold goods rank as 1, 2, 3 respectively for accessing electronic information resources.

**Table 27: Extent of use of Search Engines by Respondents**

| Search Engines | Great Extend | Some Extent | What Extent | Not at all | Total | Mean | Rank |
|----------------|--------------|-------------|-------------|------------|-------|------|------|
| Alta Vista     | 10(7.81%)    | 13(10.2%)   | 50(39.6%)   | 55(43.0%)  | 234   | 1.82 | 3    |
| Bing           | 1(8%)        | 2(1.6%)     | 54(42.2%)   | 71(55.5%)  | 189   | 1.47 |      |
| Galaxy         | 6(4.7%)      | 46(35.93%)  | 60(46.87%)  | 16(12.5%)  | 296   | 2.31 | 2    |
| Google         | 96(75%)      | 17(13.3%)   | 7(5.5%)     | 8(6.25%)   | 457   | 3.57 | 1    |
| Hot Boot       | 3(2.35%)     | 7(5.5%)     | 51(39.8%)   | 67(52.34%) | 202   | 1.57 | 6    |
| Infoseek       | 7(5.46%)     | 7(5.5%)     | 56(43.75%)  | 58(45.3%)  | 219   | 1.71 | 4    |
| Lycos          | 4(3.12%)     | 8(6.2%)     | 53(41.40%)  | 63(49.2%)  | 209   | 1.63 | 5    |

Table 27 is about search engines using by respondents, and with great extent of use Google, Alta vista, info seek, Galaxy as 75%, 7.81%, 5.46%, 4.7% respectively holds comparative result. for some extent galaxy holds percentage of 35.93%.and in case of ‘ What extent’. Galaxy, Info seek, Bing, Lycos, Hot Book, Alta Vista as 46.87%, 42.2%, 41.40%, 39.8%,39.06%, are used by respondents. Further in case of “Not at all” Bing is very rarely use which holds highest 55.5%.Google holds overall ranking 1.

## **FINDINGS STUDY**

- The majority of the faculty members under study are female teachers who have age between 40 to 50 years
- They have income less than one –lakhs and majority of them hails from urban proximity as they have more than 10 years of teaching experience.
- Majority (51.56%) of the respondents have 2 to 5 year Research experience
- Majority (44.53%) of the respondents working as Assistant professor
- More than 57 of the teachers working on permanent basis working
- Majority of the faculty members are from aided institutions
- Higher percentage 31.25% of the respondents use simple search
- More than one third 35.15% of the respondents use title search options,
- 128 faculty members who have knowledge of Web OPAC. Use basic search in web OPAC,
- Nearly 48.43% of faculty members considered the title of the document for required information in the library catalogue.
- Majority of the respondents use keywords to search for searching information
- More than two fifth of the respondents used to search for information about a book
- Greater part of the study population have knowledge of the Boolean operators and also they are familiar with these Boolean operators
- Almost 45.34% of the B.Ed faculty have knowledge of Synonyms key words they have knowledge of OR operator,
- Large majority of the greater part of the study population 85.9% have knowledge about the file formats and also they have familiar with varies file formats
- More than one third 32.03% of the students prefer MS-WORD,
- Shows preferred mode of searching for books or e-books among the faculty members search books or e-books on Google.com
- Majority of the respondents have good skills for searching of journal articles through indexing journals
- Library staff is a major channels used for collection of digital information services

- Google chrome is the most by all faculty members under the study Internet,browser.

## CONCLUSIONS

ICT based teaching Day by day moving towards to digital environmentmany changes happening ICT based teaching. One can have update knowledge in this era. Teaching field is a field where the new innovation can adopted very effectively. That's why one can must and should have training programs and update them to move towards ICT. Many search strategies and techniques used to search information. Many search engines developed to access the internet to retrieve relevant information. Previous experience with the B.Ed. teaching method can also be beneficial. Many of the teachers now demand short-term training on new teaching approaches as a result of the advent of new technology (computer assisted). Older teachers will need to take refresher courses to search for information in digital environments.

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